ISTANBUL
SUSTAINABLE URBAN MOBILITY PLAN

September 2021
What is Sustainable Urban Mobility Plan (SUMP)?

A Sustainable Urban Mobility Plan is a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life.

It builds on existing planning practices and takes due consideration of integration, participation and evaluation principles.

Source: SUMP Guidance: EC, 2014
SUMP is not just about transportation, it is a place-oriented study.

From the current transportation plans; it aims to transition to a planning method that uses physical, behavioral and operational tools together.
SUMP Focus Points

- Sustainability
- Mobility
- Active modes
- Stakeholder Engagement
- Integration
- Vision development
- Social Inclusion
- Transportation for ‘Everyone’
Within the scope of the «GLOBAL FUTURE CITIES PROGRAMME" developed by the Foreign Commonwealth and Development Office together with the United Nations Habitat Organization; The project has been ongoing since September 2019.
Istanbul SUMP Project Stakeholders

Programme Management
United Kingdom Government Fund

Strategy and Knowledge Sharing
United Nations Human Settlements Programme

Primary Beneficiary
Istanbul Metropolitan Municipality

Delivery Partner
Arup

Beneficiary Target Stakeholders
Everyone living in ISTANBUL
Istanbul SUMP Project Team

IMM SUMP Project Management and Technical Control
Department of Transportation – Directorate of Transportation Planning

IMM SUMP Team
23 different IMM directorates and affiliates

- Capacity building activities are carried out with regular coordination meetings, workshops and SUMP training modules.
- Bicycle, Pedestrian and Sustainable Urban Mobility units established within the IMM Directorate of Transportation Planning were included in the team.
İstanbul SUMP

Istanbul SUMP is the first «Sustainable Urban Mobility Plan (SUMP)» in Turkey.

The first SUMP study made for a “mega city” with population over 15 million.

It has adapted and achieved continuity throughout the pandemic. It has been added to the European Commission SUMP literature with pandemic phase studies.
# Main Components of Istanbul SUMP

## Principles
- People centric
- Holistic
- Participation and transparency
- Functional urban area

## Scope
- Quality of life
- Social inclusion
- Mobility and accessibility

## Stakeholders
- People touching the city
- NGOs
- Businesses
- Local and national bodies
- Scientists/Experts
Principals of İstanbul SUMP

- **Sustainable mobility**
  More accessibility with sustainable modes

- **Integrating all transport modes**
  For example, multi-modal transportation solutions

- **Promoting non-motorized transport**
  Walking and cycling

- **Cooperation between institutional units**
  Capacity building

- **Involving citizens and stakeholders**
  Underrepresented groups

- **Long-term vision and clear implementation plan**
  Core Projects

- **Monitoring and evaluation**
  Making the project implementation safe
How do we reach targets?

**INCLUDE PARTIES**
- Stakeholder Engagement and Communication Methodology
- Social Inclusion

**IMPROVE LOCAL CONDITIONS**
- Context Specific Guidelines
- Governance Plan
- Capacity Development

**DEVELOP SUMP**
- Strategy Development and Scenarios
- Vision, Objectives and Targets
- Policy Measures

**DEFINE CLEAR ROAD MAP**
- SUMP Implementation Plan
- Monitoring and Evaluation
Istanbul SUMP Timeline

M1 Communication & Participation Methodology

M2 Context specific guidelines for the SUMP

M3 Governance Structure for Istanbul SUMP

M4.1 Vision and Scenarios

M4.2 Goals, Objectives, Targets and Indicators

M5 Measure Planning

M6 SUMP Implementation Plan (Road Map)

M7 Capacity Building on Database Integration

M8 Monitoring & Evaluation System

M10 Capacity Development and Training for SUMP

September 2019

Today

August 2021

October 2021

Final SUMP

M7 Capacity Building on Database Integration

M10 Capacity Development and Training for SUMP

Today

M9 Final SUMP

Capacity Building on Database Integration

M10 Capacity Development and Training for SUMP

Today
Engagement to reach the Targets

In 4 different phases of the project; total of 22 workshops

- Future of Istanbul Transport
- Istanbul SUMP: Vision, Objectives, Indicators and Targets
- Istanbul SUMP Measures Planning
- Istanbul SUMP Implementation Plan Core Projects

All reached at online events, 220 stakeholders

- Government,
- Municipalities,
- District municipalities,
- NGOs,
- IMM,
- Private sector,
- Academicians and
- Representatives of operators

In the underrepresented groups, %73 representation

In principle with Gender Equality and Social Inclusion 73% representation from Underrepresented Groups was achieved.

IMM SUMP Team

The IMM SUMP Team was established, which includes participants from 23 different IMM directorates and affiliates.
Gender Equality and Social Inclusion

AIM

- Participation of underrepresented groups in decision processes and urban life
- Contributing to the United Nations' Sustainable Development Goals (SDGs) with the motto "LEAVE NOONE BEHIND"

8 underrepresented groups

Women, youth/children, 65+ group citizens, individuals with disabilities, immigrants, visitors/tourists/business travelers, low-income groups/unemployed.

Especially during the Covid-19 pandemic period, it has become more evident how vulnerable groups are affected by transportation.

Additional groups in Istanbul SUMP

People living in peripheral areas, night shift workers, people with disabilities (learning disabilities, mental / physical people with disabilities), those with chronic conditions, refugees and asylum seekers, ethnic minorities, parents / dependents and LGBT + individuals
Scenarios, Vision, Objectives, Indicators and Targets

MAIN STEPS OF MONITORING AND EVALUATION STUDIES
External Factors and Istanbul SUMP Scenarios
Inclusive City Scenario is a reflection of an ideal city that flourishes under a very strong economic situation combined with an efficient and bottom-up decision-making structure. This scenario is located in the top-left quadrant but is moved further towards upper left corner of the quadrant from the Resilient-Green City Scenario. Essential attributes of the Inclusive City Scenario are given on the right side.

**MOBILITY TRENDS**
- Reduced mobility needs
- Almost completely car-free
- Emphasis on active transport modes
- Slow city
- Advanced and high-quality shared mobility supported by the local government
- Increased accessibility for all

**LAND USE**
- Compact city
- City of short distances
- Connected neighborhoods
- Parking will only be available off-street
- Car-parks replaced by urban farms or public spaces

**ECONOMY**
- Higher prosperity, rebalanced economic development of regions in the country, higher household income

**FUNDING**
- Higher and better-targeted funding with a special focus on zero-carbon, small-scale horticulture, local production/consumption, etc.

**ENERGY**
- Focus on alternative, clean energy resources, fossil fuel use is becoming a thing of the past

**TECHNOLOGY UPTAKE**
- High but better controlled technology uptake, streamlined innovation, positive disruption, smart technology is everywhere and helps to integrate diverse systems

**GOVERNANCE**
- Community organized small-scale production and distribution

**SOCIAL TRENDS**
- High level of social inclusion
- Reduced inequalities through accommodating different needs of all under-represented groups
- High level of awareness on issues regarding sustainability

**CLIMATE CHANGE**
- High level of resilience for climate change

**PANDEMICS**
- High level of resilience for pandemics (more use of private transport means)

**RESILIENCE**
- Population downsized and some people moved to other cities
An inclusive, and innovative transportation system, focusing on people and the environment, providing the right mix of safe, integrated, accessible and affordable mobility alternatives, compatible with the unique geography and historical values of Istanbul for a sustainable and resilient future.
İstanbul SUMP Main Objectives

1. Have an accessible, affordable, integrated and inclusive transportation system
2. Have an environmentally sustainable transportation system
3. Have an economically sustainable and resilient transportation system
4. Improve the safety and security of transport and travelling
5. Reduce traffic volumes, congestion and automobile dependency
6. Stimulate the modal shift to public transport
7. Stimulate the modal shift to active modes
8. Have a transportation system that promotes compact and polycentric development
9. Have an efficient city logistics system with minimal negative impact
Objectives, Indicators and Targets

<table>
<thead>
<tr>
<th>No</th>
<th>Objectives</th>
<th>Number of Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Have an accessible, affordable, integrated and inclusive transportation system</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Have an environmentally sustainable transportation system</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Have an economically sustainable and resilient transportation system</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Improve the safety and security of transport and travelling</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Reduce traffic volumes, congestion and automobile dependency</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Stimulate the modal shift to public transport</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>Stimulate the modal shift to active modes (walking and cycling)</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>Have a transportation system that promotes compact and polycentric development</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Have an efficient city logistics system with minimal negative impact</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Objectives</th>
<th>Core Indicators</th>
<th>Draft Targets (2040)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have an environmentally sustainable transportation system</td>
<td>1  Per capita well-to-wheel GHG emissions by all urban area passenger and freight transport modes.</td>
<td>60% reduction- Zero emission</td>
</tr>
<tr>
<td></td>
<td>3  Share of electric, hybrid, hydrogen vehicles used in the PT fleet</td>
<td>50%-100%</td>
</tr>
<tr>
<td></td>
<td>4  Share of electric, hybrid, hydrogen cars and taxis</td>
<td>40%-60%</td>
</tr>
<tr>
<td></td>
<td>5  Percentage of population hindered by urban transport noise, based on hindrance factors for noise exposure data of population by noise bands</td>
<td>Total affected over 65 DB decrease by 25-100%, total affected over 55 DB decrease by 10-50%</td>
</tr>
</tbody>
</table>
Istanbul SUMP
Measure Packages

1. Inclusive Mobility
2. Transition to Low-Carbon
3. Promoting Active Mobility
4. Seamless Transfer and Integration
5. Car-Independent Lifestyles/Reducing Travel Volume
6. Urban Freight
7. Mobility Governance
8. Improving Traffic Flow
Transition to Low Carbon

Seamless Transfer and Integration

Policies
- Low Emission Zones
- Decarbonisation of the Public Transport Fleet and Vehicles
- Walking
- Cycling
- Healthy Streets
- Micro-Mobility

Core Projects
- Low Emission Zone
- Metrobus Decarbonisation
- Decarbonisation of the Public Transport Bus Fleet
- Cycle Feeder Routes
- Pedestrian Routes
- Traffic Calming
- Junction improvements for pedestrians and cyclists
- E-bikes and e-scooters

8 projects
Seamless Transfer and Integration

**Policies**
- Extension of railway lines
- Improving accessibility to the rail and BRT networks
- Minibus transformation
- Improvement of the other modes

**Core Projects**
- Rail network extension
- İstanköy extension to include minibus operations
- İstambul Network Management Control Centre
- Bus lanes
- Minibus feeder routes
- Passenger sea transport – fleet renewal
- Extension of Transfer Centres
- Extension of Real-Time Passenger Information and Open Data
- Bus Service/frequency Improvement Programme
- Park and Ride Facilities

10 projects
Reducing Congestion

Policies
- Parking and Road Usage Regulation
- Mobility Management
- Urban Freight Demand Management
- Road Network Management

Core Projects
- Congestion Charging
- Extension of Parking Regulation
- Residents’ Parking Permit System
- Introduction of an Automated Payment System for Parking
- Reorganisation of Parking Regulation Enforcement
- Implementation of Institutional Mobility Management
- Construction Concentration Centres
- Neighbourhood Mobility Service Centres

8 projects
**Project Cards – Example**

**Low Emission Zone**

Problem description

Rising Air Pollution (NO2 and Particulate Matter, PM10, PM 2.5)

<table>
<thead>
<tr>
<th>Sector/ transport mode</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road transport</td>
<td>Theme 1: Transition to Low Carbon</td>
</tr>
</tbody>
</table>

Impact

Improved levels of air quality with health benefits (up to 2 years’ reduction in life expectancy at birth, child lung development, risk of asthma suffers, earlier onset dementia)

Preparatory Action and Projects

- A feasibility study to understand the Pilot area air quality problems in order to define area for consideration to be included within an LEZ and to define application of LEZ emissions standards and vehicles, to include an emissions levy and charging regime.
- Setup air quality monitoring scheme for LEZ areas.
- A study to look at legislation to allow IMM to collect revenue.
- Review of IMM’s institutional capacity in line with the Istanbul Climate Change Plan.
- Consideration for the LEZ to follow EU vehicle regulations.

Relation with other projects and measures

Could be considered in tandem with congestion charge, as per London, where the congestion charging and current LEZ areas are the same. Strong link needed with positive complementary benefits as with the congestion charging project. In the longer term linked into the Istanbul Transport Coordination Centre.

Constraints and risks

Commercial impacts may create opposition for example from road hauliers and residents. Boundary effects as traffic moves to routes just outside zone boundary. Discriminates against less well off. Complex to implement, may involve street closures to prevent re-routing. Very extensive public consultation and planning required.

<table>
<thead>
<tr>
<th>Beneficiaries</th>
<th>Owner/responsible</th>
<th>Third parties involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population, especially groups living within LEZ area</td>
<td>IMM or dedicated new unit</td>
<td>Public, public transport and freight vehicle operators</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current status</th>
<th>Preparation period</th>
<th>Implementation period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>For Pilot Scheme: Detailed feasibility and consultation 4 years (2023-2024) 4 years (2025-2029)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated budget (million)</th>
<th>Financing source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital cost is TRY 18.2 million per perimeter km, revenue can cover operating costs. Initial implementation is expected to cost 1 billion TRY</td>
<td>To be discussed. Costs could be shared with the implementation of the Congestion charging scheme</td>
</tr>
</tbody>
</table>
# Project Fact Sheets – Example

## Low Emission Zone

### Project Implementation Plan

The introduction of a LEZ in Emirhanlı would be a large exercise requiring significant resources in terms of feasibility, consultation, implementation, operation, monitoring and enforcement. However, the reward, in terms of improved air quality, could be substantial, subject to the results of a detailed appraisal and monitoring exercise. Running the LEZ in tandem with the proposed congestion charging project, both of which cover the same scheme area, may prove to be a benefit in terms of costs and programming.

A potential Project Implementation Plan and its potential expansion is shown in table on the right.

It should be noted that the procurement period is projected to last 2 years, based upon experience from other similar projects, obviously should the project scheme be less sophisticated and run in parallel with the congestion charging project then timescales could be less than that indicated. In addition, should the pilot project prove successful and gain public support than it could be extended should the roll out of electric vehicles not progress as quickly as proposed within the SUMP.

### Year 1 - Year 9

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>Feasibility Study</td>
</tr>
<tr>
<td>Year 2</td>
<td>Functional Design</td>
</tr>
<tr>
<td>Year 3</td>
<td>Legal Framework</td>
</tr>
<tr>
<td>Year 4</td>
<td>Consultation and Communications</td>
</tr>
<tr>
<td>Year 5</td>
<td>Legislation</td>
</tr>
<tr>
<td>Year 6</td>
<td>Procurement</td>
</tr>
<tr>
<td>Year 7</td>
<td>Installation and Organisation</td>
</tr>
<tr>
<td>Year 8</td>
<td>Scheme Expansion</td>
</tr>
</tbody>
</table>

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Map: LEZ Pilot Area in the Historic Peninsula Emirhanlı
<table>
<thead>
<tr>
<th>No</th>
<th>Project Name</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Extension of parking regulation</td>
<td>Must-Do</td>
</tr>
<tr>
<td>21</td>
<td>Implementation of Institutional Mobility Management</td>
<td>Must-Do</td>
</tr>
<tr>
<td>10</td>
<td>Automated payment system for parking</td>
<td>Must-Do</td>
</tr>
<tr>
<td>5</td>
<td>Istanbul Network Management Control Centre</td>
<td>Must-Do</td>
</tr>
<tr>
<td>11</td>
<td>Reorganisation of parking regulation enforcement</td>
<td>Must-Do</td>
</tr>
<tr>
<td>9</td>
<td>Residents parking permit system</td>
<td>Must-Do</td>
</tr>
<tr>
<td>19</td>
<td>Junction improvements for pedestrians and cyclists</td>
<td>High</td>
</tr>
<tr>
<td>7</td>
<td>Metrobus Decarbonization</td>
<td>High</td>
</tr>
<tr>
<td>13</td>
<td>Minibus feeder routes (gross contract)</td>
<td>High</td>
</tr>
<tr>
<td>1</td>
<td>Rail network extension (not committed/planned)</td>
<td>High</td>
</tr>
<tr>
<td>15</td>
<td>Extension of Transfer Centres</td>
<td>High</td>
</tr>
<tr>
<td>17</td>
<td>Traffic calming</td>
<td>High</td>
</tr>
<tr>
<td>12</td>
<td>Bus lanes</td>
<td>Medium</td>
</tr>
<tr>
<td>3</td>
<td>Congestion Charging Zone(s)</td>
<td>Medium</td>
</tr>
<tr>
<td>6</td>
<td>Decarbonisation of the Public Transport Bus Fleet</td>
<td>Medium</td>
</tr>
<tr>
<td>22</td>
<td>Construction material concentration centres</td>
<td>Medium</td>
</tr>
<tr>
<td>16</td>
<td>Cycle Feeder Routes (Strategic Cycling network)</td>
<td>Medium</td>
</tr>
<tr>
<td>20</td>
<td>Real-Time Passenger Information and open data</td>
<td>Medium</td>
</tr>
<tr>
<td>18</td>
<td>Pedestrian routes (Strategic Walking Network)</td>
<td>Medium</td>
</tr>
<tr>
<td>2</td>
<td>Low Emission Zone(s)</td>
<td>Low</td>
</tr>
<tr>
<td>14</td>
<td>Passenger sea transport - fleet renewal</td>
<td>Low</td>
</tr>
<tr>
<td>26</td>
<td>Bus service improvement programme</td>
<td>Next</td>
</tr>
<tr>
<td>24</td>
<td>E-bikes and e-scooters</td>
<td>Next</td>
</tr>
<tr>
<td>4</td>
<td>Istanbul Card extension to include minibus operations</td>
<td>Next</td>
</tr>
<tr>
<td>25</td>
<td>Neighbourhood Mobility Service Centres</td>
<td>Next</td>
</tr>
<tr>
<td>23</td>
<td>Park and ride</td>
<td>Next</td>
</tr>
</tbody>
</table>
Expected RESULTS

Vision, scenarios, objectives, targets and policy measures created by the collaborative work of all relevant stakeholders

An inclusive, innovative and participatory Sustainable Urban Mobility Plan focused on the needs of all segments of society

Along with the plan, guidelines for implementing and monitoring the plan
İstanbul SUMP

**OPPORTUNITIES**
- Strong Engagement
- Local Authority Support
- Civitas Membership
- İstanbul Transportation Platform
- EU Funds for SUMP Implementation
- Ownership
- Capacity Building Trainings
- Transportation Model Existence
- Teamwork
- Monitoring and Evaluation

**CHALLENGES**
- Legal Framework
- Political Challenges
- Uncertainties (Economy, population)
- Extraordinary Situations such as Disaster, Pandemic
- Data Collection and Database Management
- Budget and Financing
Lessons Learnt

**Stakeholder analysis** needs to be done well.

It is important to have **continuing participation** and support in the study of SUMP.

The work should be **owned by** all stakeholders from the beginning of the process.

It is necessary for the SUMP to communicate with **underrepresented groups** and to protect the interests of all segments.

It is of great importance to **introduce SUMP to the citizens** through communication channels.
### Lessons Learnt

<table>
<thead>
<tr>
<th>Box</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>It is essential that the identified projects are feasible and address the most prioritised issues.</strong> Therefore, the project priorities of local governments should be adapted.</td>
<td></td>
</tr>
<tr>
<td><strong>It is essential to determine the legal framework</strong> to ensure the sustainability of the plan.</td>
<td></td>
</tr>
<tr>
<td><strong>The SUMP Team</strong> should ensure that the plan is followed by the monitoring and evaluation process and is a sustainable plan.</td>
<td></td>
</tr>
<tr>
<td>Considering the principles of <strong>Sustainable Urban Mobility</strong> of the Transport Master Plan studies; Contrary to traditional methods, it should be developed with the participation of <strong>our citizens and stakeholders</strong>, should be people-oriented, not automobile, and should fully comply with all other important sectors such as health, environment and energy.</td>
<td></td>
</tr>
<tr>
<td>For this reason, our main takeaways are those the Transportation Master Plan studies turn into a Sustainable Urban Mobility Plan and a hybrid model is used in the transition period.</td>
<td></td>
</tr>
</tbody>
</table>
Thank You!